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IDENTIFIERS *Washington

ABSTRACT

Project objectives included: the children would increase their grade equivalent (GE) score in reading and math by one or more months GE for each 20 days of attendance; children dominant in Spanish would have a higher mean score in Spanish than norm group children of comparable age after 100 or more days of attendance; the children's bilingual capability would increase by advancing one or more steps on the project bilingual classification scale after 100 or more days of attendance; children who had attended the program for 100 or more days since February 1975 would show superiority over those of comparable age in the norm group; parents and advisory board members would be active in program management decisions; family members would participate in their children's educational program by acting as teacher or assistant, assisting with cultural heritage activities, or providing support services. During the year, 203 children were served; of these, 199 were Mexican Americans. The reading and math subtests of the Wide Range Achievement Test, the Peabody Picture Vocabulary Test Form B, and the BMMS Test of Cultural Concepts were used to measure student achievement. The project met or exceeded all its objectives except one. Although the children did not gain a greater proficiency in Spanish, they did maintain their Spanish while making gains in their English proficiency. This report discusses the measurement used and the basis for indicating that the objective was exceeded, met, or not met. (MQ)

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ED152464

BILINGUAL MINI SCHOOLS TUTORING PROJECT

A Bilingual Program
funded by

Urban, Rural, Racial Disadvantaged Program Funds

Provided by
State of Washington
Superintendent of Public Instruction
Administered by
Walt Barbee

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FINAL EVLAUATION
1976-1977 Program Year

Sixth in a series of
reports on this program

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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Grantee Agency:

(In 1976)
Educational Service District 104
Ephrata, Washington
Ernest Forge, Superintendent

(In 1977)
Educational Service District 171
Wenatchee, Washington
Peter N. Lolas, Superintendent

Project Director
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AC 010435

REPORT PREPARED BY

Beverly McConnell, Evaluator

July, 1977

1. SCHOOL DISTRICT: Educ. Service Dist. 171(104)

5. SIGNATURE OF SCHOOL DIST. SUPT. Peter N Lolos

URRD PROJECT FLASH SHEET

2. PROJECT TITLE: Bilingual Mini Schools Tutoring Project

4. PROJECT NUMBER:

3. URRD CATEGORY: Supplementary Supported: Bilingual

6. SIGNATURE OF PROJECT DIRECTOR: Louise Gustafson

7. DATE: July 15, 1977

PART I -- A STATISTICAL ABSTRACT

TOTAL PROJECT COST	URRD GRANT	DISTRICT IN-KIND	OTHER LOC. STATE OR FEDERAL	URRD UNDER-SPEND	NO. OF SITES	GRADE LEVEL	AVERAGE COST PER PUPIL	TOTAL NUMBER SERVED	BLACK	AMERICAN INDIAN	MEXICAN AMERICAN	ASIAN AMERICAN	OTHER	TOTAL STAFF	PROF. EMPLOYED	PARA-PROF. EMPLOYED	PREVIOUSLY UNEMPLOYED	NUMBER OF VOLUNTEERS	TOTAL NO. VOLUNTEER HOURS	NUMBER OF ADV. COMM. MEMBERS	TOTAL ADV MEETINGS CONDUCTED
90,173	34,950	600	55,531	308	3	PK -6	444	203			199		4	5.75 FTE	0	5.75 FTE	0	149	400	12*	23

PART II -- AN EVALUATION PROFILE (WHAT ACTUALLY HAPPENED TO THE PARTICIPANTS AS A DIRECT RESULT OF THIS URRD PROJECT)

- LIST YOUR OBJECTIVES BELOW -

(DO NOT ABBREVIATE YOUR OBJECTIVES!)

	AFTER EACH OBJECTIVE CHECK APPROPRIATE COLUMN BELOW: EXCEEDED	MET	PART. MET	NOT MET	CLASSIFY EACH OBJECTIVE: PRODUCT PROCESS
1. At least 50% of project children will increase their grade equivalent score on the Wide Range Achievement test, READING subtest, by one or more months GE for each 20 day period of attendance from pre to post test.		X			PRODUCT
2. At least 50% of project children will increase their grade equivalent score on the Wide Range Achievement test, MATH subtest, by one or more months GE from each 20 day period of attendance from pre to post test.	X				PRODUCT
3. Project children for whom Spanish is the primary language will have a higher mean score in Spanish than norm group children of comparable age after 100 or more days attendance, and a mean score superiority that is statistically significant at the .05 level after 200+ days project attendance as measured by Form B of the Peabody Picture Vocabulary Test.				X	PRODUCT
4. At least 50% of project children will increase their bilingual capability by advancing one or more steps on the project bilingual classification scale, after 100 or more days attendance in the program.	X				PRODUCT
5. Project children who have attended the program for 100 or more days since February 1975 will show superiority over children of comparable age in the project norm group that is statistically significant at the .05 level as measured by the BMHS Test of Cultural Concepts.	X				PRODUCT
Continued on Next Page					
TOTAL NUMBER OF PRODUCT OBJECTIVES	4	2	0	1	
TOTAL NUMBER OF PROCESS OBJECTIVES	0	0	1	0	
GRAND TOTAL:	4	2	1	1	

(5/75

(COMPLETE ALL SECTIONS OF THE FLASH SHEETS.)

*12 counts just the officers or board members of the three parent advisory groups. All parents are members and average attendance ran from 10-30 at parent meetings at each site.

RETURN TO WALT BARBEE.

OLYMPIA, WASHINGTON

URRD PROJECT FLASH SHEET

1. SCHOOL DISTRICT:

2. PROJECT TITLE: 4. PROJECT NUMBER:

3. URRD CATEGORICAL OBJECTIVE SUPPORTED:

Victor N Lobo
5. SIGNATURE OF SCHOOL DIST. SUPT.

Louise Gustafson
6. SIGNATURE OF PROJECT DIRECTOR 7. DATE:

PART I -- A STATISTICAL ABSTRACT

TOTAL PROJECT COST	URRD GRANT	DISTRICT IN-KIND	OTHER LOC. STATE OR FEDERAL	URRD UNDER-SPEND	NO. OF SITES	GRADE LEVEL	AVERAGE COST PER PUPIL	TOTAL NUMBER SERVED	BLACK	AMERICAN INDIAN	MEXICAN AMERICAN	ASIAN AMERICAN	OTHER	TOTAL STAFF	PROF. EMPLOYED	PARA-PROF. EMPLOYED	PREVIOUSLY UNEMPLOYED	NUMBER OF VOLUNTEERS	TOTAL NO. VOLUNTEER HOURS	NUMBER OF ADV. COMM. MEMBERS	TOTAL ADV. MEETINGS CONDUCTED.

PART II -- AN EVALUATION PROFILE (WHAT ACTUALLY HAPPENED TO THE PARTICIPANTS AS A DIRECT RESULT OF THIS URRD PROJECT)

(DO NOT ABBREVIATE YOUR OBJECTIVES!) LIST YOUR OBJECTIVES BELOW - CONTINUED FROM FIRST PAGE

	AFTER EACH OBJECTIVE CHECK APPROPRIATE COLUMN BELOW: EXCEEDED	MET	PART. MET	NOT MET	CLASSIFY EACH OBJECTIVE: PRODUCT/PROCESS
6. Project teachers will provide instruction each week on project approved, programmed curriculum materials for math, reading and oral language; and lessons monthly in cultural heritage, as documented by end of week progress reports on placement of each child in each curriculum area, and a score of at least 80% on each site's curriculum implementation checklist.			X		PROCESS
7. Parents and community members of advisory boards for each site will be active in program management decisions involving (a) organizational matters (e.g. setting meeting times, voting for officers, planning parent activities); (b) review and input into funding proposals; (c) interviewing and selection of teaching staff as well as other personnel actions; (d) decisions regarding use of parent funds; (e) discussion of hours of operation, curriculum and other aspects of the educational program; (f) participation in program evaluation, as documented by minutes of meetings and copies of parent evaluation reports.		X			PRODUCT
8. Family members equal to at least 1/3 the enrollment capacity at each site will participate in their children's educational program through (a)acting as a teacher or teaching assistant; (b) assisting with cultural heritage activities; (c) participating in programs in which parents and children interact in educational games; (d) providing support services such as assisting with rehabilitating centers, making equipment, laundry or repairs, providing transportation,etc.,as documented by parent vouchers recording service to the program, and rosters of family fun night participation.	X				PRODUCT
TOTAL NUMBER OF PRODUCT OBJECTIVES	4	2	0	1	
TOTAL NUMBER OF PROGESS OBJECTIVES	0	0	1	0	
GRAND TOTAL:	4	2	1	1	

(COMPLETE ALL SECTIONS OF THE FLASH SHEETS.)

5 RETURN TO WALT BARBEE.

PART III: A NARRATIVE SUMMARY

1. For each objective listed under Part II, AN EVALUATION PROFILE, briefly describe the measurement used and the basis for indicating that the objective has been exceeded, met, partially met, or not met.

OBJECTIVE 1: READING GAINS

BEFORE THE PROGRAM: Children are pretested within thirty days when they enter the program. In reading, the average score on pretests on the Wide Range Achievement Test, for tests through January 1977, were as follows:

Five year olds: raw score 8.7, 10th percentile
Six year olds: raw score 14.8, 8th percentile
Seven year olds: raw score 21.4, 4th percentile

As the above figures indicate the program is recruiting children who are severely deficient in reading skills in English when there scores are compared to the national norm group of children of comparable age from which the percentile rankings came.

Children who are at this extreme bottom range normally make gains of far less than the children in the normal range. Setting a goal of one month gain in grade equivalent score for the equivalent of one month attendance (20 days attendance) therefore represents an accelerated gain for these children.

EDUCATIONAL PROCEDURES USED IN THE PROGRAM: The Moses Lake and Connell preschool centers each had morning and afternoon kindergarten groups, using the "other half" day since kindergarten in these areas is a half day program. Children were taught in small groups (6 to 8 children) housed in the preschool center. The school-age children, first grade and up came after school for approximately a 1 1/2 hour program. In Connell the children were released from school approximately 30 minutes early so that part of their time in the program was released time and part after school time. They walked to the preschool center from the school. At Mesa, a teacher traveled to the school and worked in space made available there. At Moses Lake, the children were served in an after school program and again the teachers went to the school where space was made available for the program.

Approximately 20-25 minutes was devoted to reading. The curriculum materials used consist of the University of Kansas reading primer which introduces children to approximately a dozen letter sounds, teaches eye movement from left to right, and teaches the skill of blending. This primer leads into the Sullivan programmed reading materials which are ideally suited to individual instruction as the children use a slider to check the answers in their workbooks as they practice the reading skills they have been taught. The paraprofessional teachers have been given three training units on how to teach the skills in the Primer and two on how to introduce and work with children in the Sullivan reading books. These stress starring new material so the child raises his hand for help on a new sound or skill, and then assigning independent work. It teaches how to check mastery by having children read aloud, how to ask comprehension questions, how to remediate common difficulties.

The reading materials used carefully control the beginning vocabulary so that most words are phonetically regular and the child with training in the phonetic sounds can sound them out by himself. In this way the child learns word attack skills in a controlled reading situation before encountering the many many irregular and different sounds for the same letter which characterize the English language. For children who come from a Spanish language background this appears to be a useful approach.

The materials are presequenced and the paraprofessional teachers are taught, by demonstration, every aspect of how to present them in training focused on the particular curriculum materials used. This does not require the background that a certified teacher would have in a variety of reading approaches: the paraprofessional teachers are technically trained to do an excellent job with one approach. And the curriculum materials used can be individualized at the same time they are taught within a small group, which meets the need of the target population of children whose attendance patterns are very irregular, and whose mastery of skills through the regular school reading program is very spotty.

The program also uses an achievement test geared to check mastery of the children on each sound and reading skill presented in the curriculum. This is given periodically by an outside tester with feedback to the teacher and to the trainer (a certified teacher who supervises 6 to 9 paraprofessional teachers). This checks the mastery level of children so selective remediation can be planned as needed. It also checks the skill of the paraprofessional teacher by showing up areas in which children's lack of mastery indicates the teacher may need help in knowing how to present particular concepts. The trainer can then focus training on these weaknesses.

(The achievement test, and the training units for training the teachers were project developed and are available at cost to another site interested in using the same type of staffing and program materials.)

RESULTS AFTER THE PROGRAM: The goal set in reading was:

At least 50% of project children will increase their grade equivalent score on the Wide Range Achievement test, READING subtest, by one or more months GE for each 20 day period of attendance from pre to post test.

The evaluation design called for analysis of long term results (all pre-post test comparisons since the program began in 1974) and current tests, e.g. those in a 12 month period up to the closing date for test analysis which was the end of April, 1977.

Long range results: There were 270 pre-post test comparisons. Out of this number 143 children (53%) had made gains equal to or exceeding the project goal of one month GE for each 20-days attendance.

TABLE 1

Long Range Analysis: Wide Range Achievement Test
The distribution of gains in reading was as follows:

Gain/loss in months GE for each 20 days attendance	Number	Percent of total	
Loss (post test below pretest)	10	4 %	
Gain: Up to 0.99 (below goal)	117	43 %	
- - -

of the math section of the Wide Range Achievement Test, for tests given through January, 1977, were as follows:

Five year olds: raw score 8.2, 10th percentile
Six year olds: raw score 14.2, 13th percentile
Seven year olds: raw score 18.2, 10th percentile

The percentile rankings are based on national norms and indicate that the program is recruiting children who, without benefit of the program, are lower in math skills than all but 13 percent of children in the national standardization group.

The expected gain by children of this low percentile rank would be about 60-70% of a normal gain, so that a gain of one month in grade equivalent score for one month of program participation (20 days) represents an accelerated gain for the children served.

EDUCATIONAL PROCEDURES USED IN THE PROGRAM: As described in the previous section on reading gains, children are served on a released time or after school basis for a period of about one and a half hours. Within that time approximately 20-25 minutes would be used for math instruction.

The curriculum used is Singer "Sets and Numbers". These are workbooks in which the basic concept must be taught by the teacher, but which then have practice problems which the children can work on independently. The paraprofessional teachers complete two training units covering the concepts taught in these math materials, and teaching procedures to be used with specific concepts in order to individualize instruction. The program has also developed a concept specific achievement test to check the mastery of children which is given by an outside tester. As attendance is irregular, this test can be used to check on concepts the child may have forgotten in an absence, and specific remediation planned.

RESULTS AFTER THE PROGRAM: The goal set in math was:

At least 50% of project children will increase their grade equivalent score on the Wide Range Achievement test, math subtest, by one or more months GE from each 20 day period of attendance from pre to post test.

Post tests are given after 100 days attendance and thereafter at 100 day intervals, with attendance kept individually for each child. The gains are measured from one testing date to the next.

Long range results: Since the program started through April, 1977 270 children were post-tested. Of this number 182 (67%) showed a gain of one month or more in grade equivalent score for each 20 day period of attendance in the program.

The distribution of gain scores are shown on Table 2 on the following page.

TABLE 2

MATH SCORES: WIDE RANGE ACHIEVEMENT TEST

The distribution of gains in math for all tests through April, 1977 was as follows:

Gain/loss in months GE for each 20 days attendance	Number	Percent of total	
Loss (post test below pretest)	16	6 %	
Gain: Up to .99 (below goal)	72	33 %	
Gain: 1.00 to 1.99 months GE	92	34 %	GOAL 67 %
Gain: 2.00 to 2.99 months GE	52	19 %	
Gain: 3.00 to 3.99 months GE	20	7 %	
Gain: 4.00 and over months GE	18	7 %	

TO SUMMARIZE THE FINDINGS FROM TABLE 2:

1. Project children whose initial achievement level was far below normal (national percentile in lowest 13%), with project help were making normal to accelerated gains in math in 67% (two-thirds) of post tests administered.

2. One-third of these children (33%) were making gains of two months or more for each month of project attendance.

Current results: In the 12 month period ending April, 1977 there were 117 pre-post test comparisons. Out of this number 76 (65%) made gains of one month or more in grade equivalent score for each 20 days attendance.

CONCLUSION: The standard error of a proportion was calculated to find the range of variability for each of the evaluation groups. Within this range the goal would be considered "met", above it the goal would be considered "exceeded".

For long range results, the standard error range for 270 tests would be from 47% to 53%. The finding of 67% therefore is more thanthree standard deviations above the mean and the goal is therefore reported as exceeded.

For current results, the standard error range for 117 tests would be from 45% to 55%. The finding of 65% is also far above this range, and the goal again is considered to be exceeded.

The math program appears to be particularly powerful with the bilingual children served by the program.

OBJECTIVE 3: GAINS IN PRIMARY LANGUAGE (SPANISH)

BEFORE THE PROGRAM: All children who enter the program are tested using the Peabody Picture Vocabulary Test (an auditory-receptive language measure). Form A of this test is given in English and Form B (using project translation) is given in Spanish. About 15% are rated as "bilingual", with second language score 50% or more of their primary language. The remaining 85% are Spanish dominant with negligible to fair English skills--e.g. a score on the English part of the test that could be obtained purely on the basis of guessing as there are four possible answers to each cue meaning that the chance of guessing correctly is one in four. A rating of "fair" would mean the score in English is above the level of pure guessing but less than half whatever their score in Spanish, the primary language.

The project goal is for Spanish dominant children to maintain and improve their Spanish, at the same time they are increasing their skills in English (objective 4).

EDUCATIONAL PROCEDURES USED IN THE PROGRAM: Oral language lessons are given all children in both Spanish and in English. Sometimes a lesson in each language is given each day; sometimes an alternate day schedule is used depending on the total length of time the child is able to attend the program.

The curriculum materials used are the SRA published Distar Language series. The 1967 edition is used in English, and a field test edition of the 1976 edition in Spanish is used. (Private funds were used to translate this series, level 1, and thus far this is the only approved field test site using the Spanish edition).

Teachers are taught how to use the materials in a two part training series developed by the project. Mastery of children is checked by an outside tester using project developed tests in Spanish, or an adaptation of the Englemann-Becker corporation achievement test in English.

Children are grouped for the lessons with teachers modeling and prompting oral responses in a fast sequence, requiring children to use words, phrases, and then whole sentences in response so that they learn not only word vocabulary but language structures.

In addition to the formal instruction, all paraprofessional teachers working with the children are bilingual in both Spanish and English, and both languages are used both informally and in providing academic instruction in other subject areas.

RESULTS AFTER THE PROGRAM: The goal in regard to Spanish dominant children improving in their primary language, Spanish, was:

Project children for whom Spanish is the primary language will have a higher mean score in Spanish than norm group children of comparable age after 100 days attendance, and a mean score superiority that is statistically significant at the .05 level after 200+ days project attendance, as measured by Form B of the Peabody Picture Vocabulary Test.

Long Range results: Since the program started, through April, 1977 the project served 295 Spanish dominant children who attended for a period of 200 or more days.

The post-test scores of these children, after 100 days attendance, or after 200 or more days attendance was compared to the average (mean) scores of other children of the same age who were just enrolling in the program. The norm group therefore represents an accumulation of pretest scores of children of a given age. Children post-tested at that age after 100 or after 200 days attendance entered at an earlier age. Comparisons are made between children of the same age at the time tested--those with program experience and those without as a norm group.

After 100 days only two out of five age groups (as shown in Table 3 below) had higher scores in Spanish than children in the norm group of the same age. After 200+ days three out of the five age groups had a higher mean score in Spanish than the norm group of comparable age. However in none of the age groups after either 100 or 200+ days was the difference in score in Spanish between project children and norm group children the same age sufficient to be statistically significant at the .05 level. In other words, the differences in whichever direction were so small that they could easily have occured by chance differences in the testing of the two groups.

The project therefore does not appear to be helping children to a much greater proficiency in Spanish. However project children are maintaining their Spanish at the same time that they are making enormous gains in their English proficiency. This is demonstrated by Table 3 which follows in which the difference in scores between project children after 200+ days attendance is compared to children in the project norm group of the same age. The significance level of this difference is also shown, in both Spanish and in English.

TABLE 3

SUPERIORITY OF PROJECT CHILDREN AFTER 200+ DAYS ATTENDANCE OVER THE PROJECT NORM GROUP, IN SPANISH AND IN ENGLISH

Age Group	Mean score in SPANISH			Mean score in ENGLISH		
	200+ day Group	Norm Group	Difference	200+ day Group	Norm Group	Difference
4.9-5.5	34.66	32.00	+2.66^{ns}	29.09	12.91	+16.18**
5.6-6.5	37.15	36.85	+0.30^{ns}	39.37	20.73	+18.64**
6.6-7.5	42.97	46.74	-3.77^{ns}	42.34	26.87	+15.47**
7.6-8.5	51.47	50.74	+0.73^{ns}	49.81	30.65	+19.16**
8.6-9.5	52.06	57.04	-4.98^{ns}	59.38	39.13	+20.25**

ns=this difference is not statistically significant at the .05 level
**=this difference is statistically significant at the .0005 level

TO SUMMARIZE THE FINDINGS FROM TABLE 3:

1. In three out of five age groups the mean score of project children in Spanish is slightly higher than that of norm group children the same age. However the differences between project and norm group are not sufficient in any age group to be statistically significant, in Spanish.

2. At all age levels, the superiority in English of project children after 200+ days attendance over the norm group the same age, is very significant (.0005 level indicates that the possibility that this much difference between the groups would occur by chance is less than 5 in 10,000).

3. Project children are maintaining their Spanish while increasing their English capability. The project has not succeeded in giving children a superiority in Spanish.

CONCLUSION: The project goal of a superiority in Spanish for project children after 100 days attendance was met in two out of five age groups in which there were 10 or more children tested. The project goal of a superiority statistically significant at the .05 level after 200+ days attendance was not achieved for any age group. The goal of Spanish dominant children improving their scores in Spanish was therefore reported as <u>not</u> <u>met</u>.

OBJECTIVE 4: GAINS IN SECOND LANGUAGE (ENGLISH)

BEFORE THE PROGRAM: As stated under objective 3, of the Spanish dominant children who enter the program 85% have negligible to fair English skills. Their score on the Peabody Picture Vocabulary Test, Form A, given in English is so low it could represent guessing for more than half of these. If above the level of guessing it is still less than half as high as their score in Spanish their primary language.

EDUCATIONAL PROCEDURES USED IN THE PROGRAM: These were described under Objective 3. Lessons are given in oral language in both Spanish and in English, using DISTAR language materials published in English by SRA. In addition to daily, or alternate day, lessons in each language, all teachers are bilingual and both languages are used both informally and to teach other academic subjects.

RESULTS AFTER THE PROGRAM: The goal in regard to increasing the children's bilingual capability was as follows:

At least 50% of project children will increase their bilingual capability by advancing one or more steps on the project bilingual classification scale, after 100 or more days attendance in the program.

There are four steps in the bilingual classification scale. The lowest step (negligible bilingualism) is when the child gets 9 points or less on the English form of the PPVT--a level which

could be obtained simply by guessing. The second step (fair bilingualism) is when the child scores above 9 points--considered above the level from pure guessing--but less than half their score achieved on the Spanish form of the test. The third step is achieved when the score in English is more than half the score achieved in Spanish. The fourth step is an equal score in the two languages, or on post tests where the score in the second language goes higher than the primary language score.

For this analysis children who entered the program at the fourth step were excluded from the analysis as there was no step to which they could advance. This left 194 children for which a series of valid tests indicating bilingual capability were available. Out of these 143 (which is 74%) had advanced one or more steps on the language classification scale after 100 or more days project attendance.

The above represents a rather crude analysis of measuring gains in the second language. A better picture of the extent to which children who were Spanish dominant increased their English skills is found in Table 3 under the previous objective. This shows an enormous gain in score on the English form of the PPVT for children after 200+ days attendance, compared to the project norm group tested before program experience. The superiority of the project group in English is statistically significant at the .0005 level for every age group.

Another analysis of the children's increasing bilingualism is shown below on Table 4. This shows the point difference between children's scores in Spanish (their primary language) and English (their second language) for the norm group children (before program experience) and project children with 200+ days attendance. As this table indicates the bilingual program experience has helped the children to become nearly equal in their scores in the two languages--more so the older they get. The Spanish score remains the higher of the two scores (it is not the program's purpose to change the child's language dominance) except in the oldest group -- and this comparison is based on the fewest number of children and is therefore the least reliable of the comparisons.

TABLE 4
POINT DIFFERENCE BETWEEN SPANISH AND ENGLISH SCORES

AGE GROUP	Norm Group (Before Program Experience)	Project group (After 200+ days attendance)
4.9-5.5	19.09	5.57
5.6-6.5	16.02	2.22
6.6-7.5	19.87	0.63
7.6-8.5	20.09	1.66
8.6-9.5	17.93	7.32*

*In this difference the English score is higher. In all others the Spanish score is higher.

CONCLUSION: All of the data above presented indicates that the program is very powerful in improving the second language skill in English for Spanish Dominant project children.

The 74% advancing by one or more steps on the language classification scale after 100 or more days project attendance far exceeds the 50% goal, and this objective is therefore reported to have been exceeded.

OBJECTIVE 5

GAINS IN KNOWLEDGE OF TWO CULTURES

BEFORE THE PROGRAM: Children are pretested on the BMHS Test of Cultural Concepts within 30 days after they enter the program. The accumulation of these pretests therefore represents the level of understanding of the cultural concepts measured by this test by project children before they have been exposed to program influence, at various ages (since children begin in this program at different ages). In the tables which follow the "before" level of understanding is found in the scores reported as "norm group".

The test instrument is project developed. It is a nonverbal test. Children are given cues, in Spanish for Mexican related items which comprise half of the 44 item test, and in English for U.S. related items which comprise the other half of the test. The content relates to the following six areas: clothing, food, holidays or celebrations of the culture, national symbols, songs, dances or musical games. For the area of songs and dances or musical games the cues are musical from a cassette tape. For each cue, word or musical, the child must select one of four pictures that best represents the cue. Test reliability has been calculated for several different groups, and ranged from .75 to .90. More details on the test are in the project application.

PROCEDURES USED IN THE PROGRAM: This is the only aspect of curriculum in which sequenced lessons are not used. Teachers devise their own cultural heritage activities. The majority, but not all, focus on the six areas selected for program emphasis. The requirement is that cultural heritage activities must be included at least once a month, replacing an academic subject on the day it is included. Reports from sites indicate that cultural heritage activities are planned more often than the minimum once a month requirement. If the schedule allows 2 1/2 hours with the children, they are usually included at least once a week. Where the schedule is shorter, once every two weeks is common. The project has developed two sets of resource materials: one in Spanish related to Mexican culture, and a set of kits related to U.S. and other world cultures, which are available to teachers, or they may devise their own activities.

In addition the program uses either a token-economy classroom scheduling, or contracts. In either case the child's efforts are rewarded by child selected reinforcement activities. It is required that cultural heritage related activities be included among the

reinforcement activities planned by the teacher. Whether the child selects these activities, however, is up to the child.

RESULTS AFTER THE PROGRAM: All children enrolled were tested during May, 1977, if the child at that time had 100 or more days attendance. The average (mean) score of children with 100 or more days attendance is compared to the norm group of comparable age (children tested before 30 days attendance). The results are presented in Table 5 below.

TABLE 5

COMPARATIVE SCORES ON BMHS TEST OF CULTURAL CONCEPTS

Attendance & Age Group	N	Mean Score	Std. Deviation	T ratio	Level of Sig.
5.0-5.11					
Norm	15	27.7	4.67		
100+ days	14	31.9	4.85	3.47	.001
6.0-7.11					
Norm	13	26.7	6.13		
100+ days	32	35.3	5.07	4.88	.0005
8.0-9.11					
Norm	10	30.9	4.33		
100+ days	14	38.4	3.61	4.64	.0005

TO SUMMARIZE THE FINDINGS FROM TABLE 5:

1. The average score of project children after 100 or more days program participation is higher in every age group than that of children pretested at that age before program attendance.
2. The difference between the scores before and after project experience is so great that it is statistically significant at a very high level (e.g. the possibility that this much difference would occur by chance is remote).

The goal for increased knowledge of cultural concepts was:

Project children who have attended the program for 100 or more days since February 1975 will show superiority over children of comparable age in the project norm group that is statistically significant at the .05 level, as measured by the BMHS test of Cultural Concepts.

CONCLUSION: The superiority of project children over the norm group children of comparable age is statistically significant at every age level. As the level of significance is much higher than the .05 level stated in the objective, the goal was reported to have been <u>exceeded</u>.

OBJECTIVE 6

PROGRAM IMPLEMENTATION AT EACH SITE

This is the only process objective in the evaluation. It combines a number of measures of program implementation considered necessary to fully implement the training, scheduling and curriculum usage necessary to achieve the instructional outcome goals.

The objective reads: Project teachers will provide instruction each week on project approved, programmed curriculum materials for math, reading and oral language; and lessons monthly in cultural heritage, as documented by end of week progress reports on placement of each child in each curriculum area, and a score of at least 80% on each site's curriculum implementation checklist.

FINDINGS: Project teachers have provided instruction each week on project approved, programmed curriculum materials for math, reading and oral language; and lessons monthly in cultural heritage, and this is documented by weekly reports from each teacher maintained on file in the evaluation office.

The project uses a monitoring instrument called the MALTO (which stands for Maintaining Active Learning Teacher Observation). This instrument has a criterion level for certain timed teacher behavior. It requires teachers to provide information and models, to check children's understanding, and to keep children on task through appropriate positive reinforcement of social and academic behavior. The implementation checklist requires that a MALTO, in which criterion is met, be completed on every active teacher. At no site was this completely implemented. At one site the trainer completed no MALTO's until the final month of the program year. This means of checking teacher performance therefore was not fully utilized, and documentation does not exist for evaluation of this aspect of program implementation.

At least twice a year a schedule giving the subjects taught and the order and length of lesson time for each is required from every teacher. The acceptability of this schedule must be approved by the resource trainers. If there are frequent changes in schedule (as required in the mobile sites which set up in several locations during the year) a new schedule is to be submitted for each major change. This was most fully implemented in the Texas and mobile sites. It was not implemented fully at any site, so this aspect of curriculum implementation cannot be evaluated.

The rate of progress of children through curriculum materials was evaluated for each site. At one site there was poor morale and an ineffective relationship between trainer and staff. At this site the progress of children was much affected. Staff changes have taken place so this situation is presumably being corrected.

CONCLUSION: Because of lack of documentation of some aspects of program implementation, and failure to meet child progress goals at one site, this objective was reported as partially met.

OBJECTIVE 7

FAMILIES INVOLVED IN DECISION MAKING

This objective reads: Parents and community members of advisory boards for each site will be active in program management decisions involving (a) organizational matters (e.g. setting meeting times, voting for officers, planning parent activities); (b) review and input into funding proposals; (c) interviewing and selection of teaching staff as well as other personnel actions; (d) decisions regarding use of parent funds; (e) discussion of hours of operation, curriculum and other aspects of the educational program; (f) participation in program evaluation, as documented by minutes of meetings and copies of parent evaluation reports.

FINDINGS: There is an organized parent and community advisory group at each site. In Texas, the home base of the mobile component of this program, the parents form a general membership and elect a five member board part of whom are parents and part community members. This board advises on policy. General parent meetings are held in addition to board meetings on such matters as review of proposals. During the instream phase the mobile component holds meetings in the labor camps or at the centers serving a collection of families who have moved north for work. Official decisions that must be made by the board (such as for expenditure of the parent fund) are made by long distance polling by telephone done by the project educational director, or site coordinator.

In Moses Lake and Connell there are advisory groups with bylaws. These include all the parents of children as members, plus community members voted in by the parent group. Each holds regularly scheduled meetings, and has subcommittees that do personnel screening for the project.

At each site individual parent members visited the program, were presented information about the curriculum and teaching methods, observed all classes in operation, and completed written evaluations of the program. These are on file in the evaluation office.

Further documentation of the types of decision making by the parent and community advisory groups is found in the following content analysis from the minutes of meetings held:

TABLE 6

CONTENT ANALYSIS OF ADVISORY COMMITTEE MINUTES

(a) Organizational matters (voting, planning parent activities, etc.)

Con:	M.L.
3/24/77 plan for parents to make aprons, setting meeting date, sign-up for repairs at center.	9/27/76 schedule elections.
4/28/77 elect officers	10/20/76 elect officers, plan party.
9/28/76 plan Hallowe'en party.	11/17/76 plan Thanksgiving dinner
	3/77 plan making of aprons.

(continued)
TABLE 6

(b) Review funding proposals

Connell: 1/77 plans for refunding; discuss adding reading in Spanish 5/77 Proposal for new building, Title I.	Moses Lake: 2/77 Review URRD proposal.	Grulla: 12/76 Discuss new Title I proposal plans. 3/77 Discuss URRD and Title 7 proposal plans.

(c) Personnel decisions

Connell: 10/76 Screening Committee review candidates for two teacher trainee, cook position.	Moses Lake: 1/77 Personnel committee, 3 candidates considered for teacher trainee.	Grulla: 10/76 Review and approve personnel under CETA funding. 11/76 Review and approve more CETA personnel.

(d) Use of parent funds

Connell: 9/76 Vote to build up parent funds buy van or car. Vote pay expenses for equipment purchases.	Moses Lake: 1/77 Use parent funds for cost of pictures

(e) Operational decisions about program

Connell: 9/76 Discuss transportation problems 2/77 Discuss URRD program helping kids w/ homework.	Moses Lake: 2/77 See demonstration of DISTAR curriculum, discuss. 4/77 Parents work w/ kids using same materials teachers do 5/77 Discuss obtaining TV for classroom	Grulla: 1/77 Discuss coordination with school district and OEO

(f) Program evaluation

Connell: 1/77 Seven parents agree to do program visit and evaluation.	Moses Lake: 2/77 Discuss URRD and Title 7 evaluations of program.	Grulla: 3/77 Discuss program evaluation by 20 parents. (individual evaluations based on visitation)

TO SUMMARIZE THE FINDINGS IN TABLE 6:

1. Parents and other family and community members have made decisions resulting in hiring of staff, earning and spending of parent funds, have reviewed and evaluated the program, made recommendation for program changes, approved funding proposals, organized a variety of social and service projects to benefit the program, as documented by minutes of meetings.

CONCLUSION: The criteria was that actions be taken at each site in at least four of the six designated areas. As this criteria was met this objective was reported as <u>met</u>.

OBJECTIVE 8

PARENTS PARTICIPATE IN THEIR CHILDREN'S EDUCATION

This goal reads: Family members equal to at least 1/3 of the enrollment capacity at each site will participate in their children's educational program through (a) acting as a teacher or teaching assistant; (b) assisting with cultural heritage activities; (c) participating in programs in which parents and children interact in educational games; (d) providing support services such as assisting with rehabilitating centers, making equipment, laundry or repairs, providing transportation, etc., as documented by parent vouchers recording service to the program, and rosters of family fun night participation.

FINDIN[illegible]. Parents organized cultural heritage activities for the children at two centers, provided substitutes so teachers could attend workshops, volunteered as teacher helpers, participated in organized programs introducing parents to use of the curriculum materials with the children. Each site had some teachers who were parents of children in the program. At all sites parents assisted with special outside activities with the children.

At the Grulla, Texas (mobile site) 41 parents participated in a special program introducing them to the educational program. Two experienced teachers met with them by families in their home or at the center explaining and discussing the educational program. The parents then spent a day in the center observing and participating in their child or children's classes. They also completed program evaluation forms recording their comments and suggestions about the educational program.

At all centers parents helped with sewing, repairs and other types of center equipment or maintenance needs.

Participation by center, and by type of activity, is shown below:

TABLE 7

PARENTS PARTICIPATION IN CHILDREN'S EDUCATIONAL PROGRAM

Center	Parents providing support services	Parents providing educational help	Unduplicated number helpers
Connell	31	48	57
Moses Lake	33	31	45
Grulla(mobile)	11	50	60

The enrollment capacity for each site (preschool and school-age) averaged 70 - 90 children. One/third this number would require 25 to 30 parents participating to meet the project goal, for each site. As shown in the table above, documentation of parent service shows involvement of approximately double this number for each program site. Many parents provided repeated and varied services to the program.

CONCLUSION: The goal was that 25 to 30 parents would be involved at each site in their children's educational program. As parent involvement documented by site was between 45 and 60 per site, with 162 different parents participating program-wide, this goal was reported to have been exceeded.

NARRATIVE SUMMARY
(continued)

2. State your formula for computing the average-cost-per-child figure in Part I, A STATISTICAL ABSTRACT.

   Total program cost (all funding sources), divided by total children served.

3. State your district's estimated per-pupil expenditure and indicate how the money is spent on children in this URRD project.

   This project is funded to an Educational Service District. It therefore does not have a per-pupil expenditure to report. In addition it serves children from several different school districts, all with different expenditure patterns. We therefore cannot provide an answer to this question.

4. Break down and identify other local, state or federal funds reported in Part I, block 4.

District in-kind:		Title VII OE:		USDA Food Reimbursement:
Admin.	$500	Admin.	$3,043	$10,500
Phone	100	Fringe	593	
	$600	Director	6,212	Other: Space donated by schools, Green Giant Co., Title XX, Educ. Institute for Rural Families:
		Clerical	6,504	$ 3,000
		Trainers	12,000	
		Fringe	2,340	
		Evaluator	4,991	
		Fringe	973	
		Inst.Material	500	
		Ed. Consult.	2,500	
		Monitoring	500	
		Phone	300	TOTAL ALL NON-URRD SOURCES:
		Travel	975	$55,531
			$41,431	

5. List the additional services provided and indicate the additional number of students served by the program as a direct result of any cooperative federal funding listed in Part I.

   The costs of administration and evaluation came from other funding sources. The costs of training, consultation on curriculum, evaluation and program monitoring also came from cooperative funding sources. All space costs and the cost of food for students came from other funding sources.

   Based on the total program cost per child, the URRD grant would have paid for services to 78 children. There were 203 children served, which means that cooperative funding expanded the service group by 125 children.

6. Briefly describe the basis on which your project attendance is recorded. Where are these attendance records filed and who is responsible for keeping them current.

Teachers record attendance for each child on a weekly form which also includes information on the progress through the curriculum for each child every subject area. This form is mailed to the project evaluator. Summary attendance information is taken from these forms, as well as child progress data used in the evaluation. The evaluator is responsible for seeing that data is received, corrected if need be, recorded and reported.

7. What is the most outstanding component (or aspect) of this project.

1. The effective use of trained paraprofessionals as teachers.

This project undertook to provide bilingual instruction, by teachers whith whom the children could identify in language usage and cultural background. The children served come primarily from Spanish speaking homes in which the adults support the family through seasonal farm labor. The mobile component has migrant adults who serve as teachers while the children are in Texas (under other funding) and move with them, continuing to provide educational services at a series of locations in Washington state to which the families migrate (URRD provides funding for services to the school-age children, while they are in Washington state). The sites at Moses Lake and Connell provide services to children some of whom are from families now settled in these areas and some of whom still migrate.

Other mobile programs had tried and failed to provide instruction to migrant children as they moved in the migrant stream, using certified teaching staff. There is such a shortage of certified bilingual teachers to begin with, that recruiting them is highly competitive. Almost none would choose the hardship of moving two or three times during a school year. If they have families such moves would disrupt their children's educational stability. The areas to which migrant families move are very short of housing. Unless other members of the family are employed in the fields, it is almost impossible to obtain housing since it is reserved for workers. This program therefore attempted to design training intensive enough to produce skillful teachers from migrant adult paraprofessionals (members of families already moving with other families in the migrant stream). It also attempted to select, adapt and field test curriculum materials that could be effectively taught by such paraprofessional teachers.

The non-mobile sites at Connell and Moses Lake shared the problem of many Spanish speaking children, few certified teachers available in the schools. The Spanish speaking population in the area is recent in origin--only within the last two decades has irrigation recovered this farm land from the dessert and crops grown that require much seasonal labor in the fields and processing. The Spanish speaking population came in largely as unskilled field labor. Their economic condition is steadily improving but not

enough so that many children or adults from these families have been able to go to college and become professional teachers in the numbers needed in these areas. This presented the choice of waiting for bilingual instruction until certified teachers could be trained, or beginning bilingual instruction relying on the readily available resource of parents and family of the children needing services. The formal academic training of teachers used in this program ranges from fifth grade to high school graduates. The program has been a demonstration that quality educational services can be provided children using entirely paraprofessional staff. The key to quality services with such staffing, however, is in the intensive training, monitoring of teacher skills and child progress, and the selection and adaptation of curriculum materials which take the burden of planning and sequencing off the teacher because it is incorporated into the materials used.

The program has been reviewed by the Office of Education Joint Dissemination Review Panel and on the basis of hard data of educational achievement significantly higher than would have occured without the program (based on norm group data) has been approved for the National Diffusion Network. This year the program became a national "developer/demonstrater model". It was the first bilingual program in the United States to achieve JDRP recognition. It is one of the few bilingual programs demonstrating statistically significant gains by children in so many areas: reading, math, handwriting, cultural knowledge, language gains, and for the preschool children (under other funding) preschool concepts. This recognition would seem to indicate that not only has the use of paraprofessionals--as handled in this program--provided acceptable educational services to children; the program has proven itself a very powerful educational program in comparison with other efforts using staff with all levels of educational experience.

2. Effective cooperative funding.

The mobile component is one benefit of cooperative funding. It provides continuous educational services both in Texas and in northern work locations in Washington state to children who migrate between the two states. The project had found sources to support a preschool program on a mobile basis. Without the URRD support, however, the school-age mobile program would not exist. Its continuation in Texas also requires cooperative funding.

Another benefit of cooperative funding is staff that devides its time between service to preschool children and the school-age children under URRD funding. This is a pull-out program for the school children (e.g. for some of the children released time is provided from regular classes. For others it is an after school program only). In any pull-out program there is a problem of not disrupting other aspects of the child's education--curriculum areas which are usually put in the morning because of the child's higher level of concentration. This means that a pull-out program is likely to have children available mainly in the afternoon. This program trains teachers and nearly all serve preschool children in the morning (some serve kindergarten children who are in public school in the afternoon). During the afternoon the preschool children usually nap and get up to less structured activities which can be managed by fewer staff, or less trained people who come in on

a part-time basis. This frees the trained staff most of whom take on one or two groups of school-age children for afternoon or after school classes. Using staff in this way has enabled the program to greatly expand the school-age children it serves by making a concentration of teachers available at the time most children can attend. One FTE teacher salary goes a long way spread over many part-time people. On the other hand it would probably not be possible to train and keep staff who would only be paid for a part-time afternoon service to children.

Each year of URRD funding the number of children reached has exceeded the number projected in seeking funds. This year funding was requested anticipating service to 155 children. The total number of children served was 203--35% more children than projected.

8. What are the project's major weaknesses?

As noted under Process Objective 6, there was some breakdown this year in the performance of training staff in carrying out part of the project monitoring system. At one site the trainer let the pace of training slip, failed to use the MALTO teacher behavior monitoring instrument, and failed to submit schedules for review and was particularly negligent of all forms of record keeping. The program operated quite well at this site despite these deficiencies since past performance by the trainer has been quite good and many of the staff were retained from earlier years when the program had been going more smoothly. At another site there also developed friction between trainer and teachers. Many of the teachers at this site were newer and their failure to work through the training program was reflected in a drop in the progress of children below that of the other sites, and below the level that had been attained at that center in previous years. This trainer has resigned; a new trainer is now working very well with program staff which should bring this site up to expectations.

9. How many children are on your waiting list? The project does not maintain a waiting list.

10. How many times has your local Advisory Committee met this year? 23

11. Do you keep minutes of each formal meeting? Yes

12. In the spaces below, indicate the cost in dollars for you to perform an academic progress follow-up report on students served by your URRD program over the past two to six years: $ 4,000